IN THE CLAIMS:

Please **amend claim 41**, and **add claims 62-71** as follows:

1. (*Previously presented*) A data transfer device adapted to transfer data from a dynamic data storage medium having at least one data storage element, the data transfer device comprising:

a head block having first and second transfer elements, the first and second transfer elements being aligned with each other in the direction of travel, in use, of the data storage element relative to the data transfer elements; and

the first and second transfer elements arranged such that, when, in use, as the data storage medium moves past the first and second transfer elements said at least one data storage element is aligned with both of said first and second data transfer elements,

wherein the first data transfer element is arranged to read data from a portion of said at least one data storage element at a different time to the second data transfer element being arranged to read data from said portion of said at least one data storage element.

2. (*Original*) A data transfer device according to Claim 1 wherein the data storage medium is a magnetic tape.

3. (*Original*) A data transfer device according to Claim 2 wherein the data storage element is a track on the tape.

4. (*Original*) A data transfer device according to Claim 1 wherein the head block is in a fixed position.

5. (*Original*) A data transfer device according to Claim 1 wherein the medium is arranged to be rewound to enable the second transfer element to read said data from said portion of said at least one data storage element.

6. (Original) A data transfer device according to Claim 1 wherein the second transfer element is arranged to read data from said portion of the at least one data storage element if the first transfer element has failed to read data from said portion.

7. (*Original*) A data transfer device according to Claim 1 wherein the device includes a control unit with which the transfer elements are adapted to communicate, said control unit being adapted to determine whether said first transfer element has failed to read said data from said portion.

8. (*Previously presented*) A data transfer device according to Claim 7 wherein the control unit includes a comparator arranged to execute at least one of the following error detection techniques on the data read by said first data transfer element:

i) cyclic redundancy checks,

ii) parity checks,

iii) non-correctable error detection codes, and

iv) non-expandable data decompression codes.

9. (*Original*) A data transfer device according to Claim 8 wherein the second transfer element is arranged to read data from said portion of the at least one data storage element if the data read by the first transfer element fails any one of the error detection techniques of Claim 8.

10. (*Previously presented*) A data transfer device adapted to transfer data from a data storage medium having at least one data storage element, the data transfer device comprising:

a head block having first and second transfer elements;

the first and second transfer elements arranged such that, when, in use, as the data storage medium moves past the first and second transfer elements said at least one data storage element is aligned with both of said first and second data transfer elements,

wherein the first data transfer element is arranged to read data from a portion of said at least one data storage element at a different time to the second data transfer element being arranged to read data from said portion of said at least one data storage element, the data storage medium being any one of the following:

i) a magneto-optical disc,

ii) a magnetic disc,

iii) a C.D.,

iv) a mini-disc.

11. (*Previously presented*) A data transfer device according to Claim **1** wherein the device is any one of the following:

i) a linear tape drive,

ii) a helical tape drive,

iii) a magnetic disc drive,

iv) a C.D. drive, and

v) a mini-disc drive.

12. (*Previously presented*) A data transfer device adapted to transfer data from a data storage medium having data storage elements, the data transfer device comprising:

first and second transfer elements; and

a displacement element having a first condition and a second condition, first and second transfer zones of the data storage medium being adjacent the first and second transfer elements respectively when said displacement element is in said first condition

wherein the first transfer zone is arranged such that, when in use with the displacement element in said first condition, the data storage medium moves past the first and second transfer elements so the first and second data storage elements are aligned with said first and second transfer elements respectively; and

wherein the second transfer zone is arranged such that, when in use with the displacement element in said second condition, the data storage medium moves past the second transfer element so the first data storage element is aligned with said second transfer element.

13. (*Original*) A data transfer device according to Claim **12** wherein the data storage medium is a magnetic tape.

14. (*Previously presented*) A data transfer device according to Claim **13** wherein the data storage element includes a track on the tape.

15. (*Previously presented*) A data transfer device according to Claim **12** wherein the medium is arranged to be rewound such that one of said data transfer elements that has passed either of the first or second transfer zones in the first condition passes the other of the second or first transfer zones in the second condition.

16. (*Original*) A data transfer device according to Claim **12** wherein said displacement element is adapted to displace the transfer elements relative to the data storage medium.

17. (*Original*) A data transfer device according to Claim **12** wherein said displacement element is adapted to displace said transfer elements relative to the storage medium in a direction that is transverse to a direction of passage of the storage medium past the transfer elements, in use.

18. (*Previously presented*) A data transfer device according to Claim **12** wherein the device includes a control unit and the transfer elements are arranged to communicate with the control unit, said control unit being adapted to determine whether said first transfer element has failed to read data from said portion.

19. (*Previously presented*) A data transfer device according to Claim **18** wherein the control unit includes a plurality of buffers and each buffer is adapted to store, temporarily, data communicated between the storage element and at least one of the transfer elements.

20. (*Previously presented*) A data transfer device according to Claim **19** wherein the control unit includes a comparator which is adapted to compare a data element indicative of the data transferred from the data storage element by the at least one transfer element to a data element of the data stored in the each buffer associated with the at least one transfer element, in use.

21. (*Previously presented*) A data transfer device according to Claim **12** wherein the data storage medium is selected from the following list:

i) a magneto-optical disc,

ii) a magnetic disc,

iii) a re-writeable C.D.,

iv) a C.D., and

v) a mini-disc.

22. (*Previously presented*) A data transfer device according to Claim **12** wherein the data transfer device is selected from the following list:

i) a linear tape drive,

ii) a helical tape drive,

iii) a magnetic disc drive,

iv) a C.D. drive, and

v) a mini-disc drive.

23. (*Previously presented*) A data transfer device having a dynamic data storage medium comprising:

a head block having first and second transfer elements;

both the first and second transfer elements being aligned with a data storage element of said data storage medium, the first and second transfer elements being aligned with each other in the direction of travel, in use, of the data storage element relative to the data transfer elements; and

wherein the first data transfer element is arranged to read data from a portion of said at least one data storage element at a different time to that at which the second data transfer element is arranged to read data from said portion of said at least one data storage element.

24. (*Original*) A data transfer device according to Claim **23** wherein the second transfer element is arranged to read data from said portion of the at least one data storage element if the first transfer element has failed to read data from said portion.

25. (*Original*) A data transfer device according to Claim **23** wherein the device includes a control unit with which the transfer elements are adapted to communicate.

26. (*Previously presented*) A data transfer device according to Claim **25** wherein the control unit includes a comparator arranged to execute at least one of the following error detection techniques on the data read by said first data transfer element:

i) cyclic redundancy check,

ii) parity check,

iii) non-correctable error detection code, and

iv) non-expandable data decompression code.

27. (*Original*) A data transfer device according to Claim **26** wherein the second transfer element is arranged to read data from said portion of the at least one data storage element if the data read by the first transfer element fails any one of the error detection techniques of Claim **26**.

28. (*Previously presented*) A data transfer device according to Claim **23** wherein the data storage medium is any one of the following:

i) a magnetic tape,

ii) a magneto-optical disc,

iii) a magnetic disc,

iv) a C.D., and

v) a mini-disc.

29. (*Previously presented*) A data transfer device according to Claim **23** wherein the device is any one of the following:

i) a linear tape drive,

ii) a helical tape drive,

iii) a magnetic disc drive,

iv) a C.D. drive, and

v) a mini-disc drive.

30. (*Previously presented*) A data transfer device having a data storage medium, comprising:

a head block having first and second transfer elements;

a displacement element;

the first transfer element arranged to transfer data between the head block and a data storage element of the data storage medium; and

the displacement element being actuable to achieve relative displacement between the head block and the data storage medium such that following displacement the second transfer element is arranged to transfer data between the head block and the data storage element.

31. (*Previously presented*) A data transfer device according to Claim **30** wherein the displacement element is adapted to displace the head block relative to the data storage medium in response to an instruction, in use.

32. (*Original*) A data transfer device according to Claim **30** wherein the displacement element is adapted to displace the head block relative to the storage medium in a direction that is transverse to a direction of passage of the storage medium past the transfer elements, in use.

33. (*Original*) A data transfer device according to Claim **30** wherein the displacement element is adapted to move the storage medium past the head block.

34. (*Previously presented*) A data transfer device according to Claim **30** wherein the storage medium comprises tape and the displacement element is adapted to rewind tape to bring a data storage element back up for reading the second element, the tape

having gone under the second element before getting to the first element.

35. (*Original*) A data transfer device according to Claim **30** wherein the device includes a control unit and wherein the transfer elements are adapted to communicate with the control unit, in use.

36. (*Original*) A data transfer device according to Claim **30** wherein the control unit includes a comparator adapted to compare a data element indicative of the data transferred from the data storage element by the at least one transfer element to a second data element.

37. (*Previously presented*) A data transfer device according to Claim **30** wherein the transfer elements are of a type selected from the following list:

(i) write heads,

(ii) read heads,

(iii) combination of both read and write heads, and

(iv) a combined read-write head.

38. (*Previously presented*) A data transfer device according to Claim **30** wherein the data storage medium is selected from the following list:

(i) a magnetic tape,

(ii) a magneto-optical disc,

(iii) a magnetic disc,

(iv) a re-writeable C.D., and

(v) a mini-disc.

39. (*Previously presented*) A data transfer device according to claim **30** wherein the data transfer device is selected from the following list:

(i) a tape drive,

(ii) a magnetic disc drive,

(iii) a C.D. drive, and

(iv) a mini-disc drive.

40. (*Previously presented*) A method of reading data from a data storage medium by using a plurality of data transfer elements, the method comprising the steps of:

(i) reading said data from a data storage element of the storage medium via a first data transfer element;

(ii) error checking a data element indicative of the data read from the storage medium via the first data transfer element;

(iii) reading said data from said data storage medium via a second transfer element if the error checking of step (ii) results in an error signal; and

(iv) actuating a displacement element so as to effect a relative displacement of the storage medium and the plurality of data transfer elements to the displacement element acts on the data transfer elements.

41. (*Currently amended*) A method of reading data from a data storage medium by using a plurality of data transfer elements, the method comprising the steps of:

(i) reading said data from a data storage element of the storage medium via a first data transfer element;

(ii) error checking a data element indicative of the data read from the storage medium via the first data transfer element;

(iii) reading said data from said data storage medium via a second transfer element if the ~~comparison~~ error checking of step ii) results in an error signal; and

(iv) aligning the second transfer element in the direction of travel of the storage medium, with both (a) the first transfer element and (b) the data storage element; and

(v) maintaining the plurality of data transfer elements in a fixed position relative to each other.

42. (*Cancelled*)

43. (*Cancelled*)

44. (*Cancelled*)

45. (*Previously presented*) A method of reading data according to Claim **40** comprising executing a cyclic redundancy check upon said data elements.

46. (*Previously presented*) A method of reading data according to Claim **40** comprising executing steps (i) and (ii) up to a predetermined number of times prior to executing step (iii) if the initial repetition of steps (i) and (ii) does not avoid the production of an error signal.

47. (*Previously presented*) A method of reading data according to Claim **46** not executing step (iii) if any one of the comparisons results in a match.

48. (*Previously presented*) A method of reading data according to Claim **40** comprising reporting a read error to a user of the storage medium if steps i) to (iii) of the method are repeated more than a pre-determined number of times during a single read operation.

49. (*Previously presented*) A method of reading data according to Claim **40** comprising providing the data storage medium in a form selected from the following list:

(i) a magnetic tape,

(ii) a magneto-optical disc,

(iii) a magnetic disc,

(iv) a C.D., and

(v) a mini-disc.

50. (*Previously presented*) A data transfer tape device adapted to transfer data to a data storage tape having a data storage track, the data transfer device comprising:

first and second data transfer elements;

a displacement element;

a control unit including a comparator;

the data transfer elements being arranged such that, when, in use, the data storage tape is moving past the transfer elements the data storage track is aligned therewith;

the comparator being arranged to error check data written to the data storage medium; and

the displacement element being arranged to achieve, in use, relative transverse displacement between said transfer elements and transfer zones such that either the first or the second transfer elements is selectively alignable with the data track, in use, in response to the instruction from the control unit.

51. (*Original*) A machine readable data carrier having encoded upon it instructions to control a control processor of a data transfer device having first and second read/write data transfer heads, a data recording medium having a read/write zone adjacent the heads, a multi-channel recording medium provided in the zone adjacent the heads, and a head to channel alignment device adapted to control the relative position, transverse to the direction of movement of the medium past the heads, of the heads and the channels of the medium, the instructions causing the control processor to read or write data to or from a channel on the recording medium and to check the read or written data for errors, and upon detecting an error the instructions causing the control processor to control the alignment device to align the channel which caused the error signal with a different head to that which was used in the read/write operation which resulted in an error signal.

52. (*Previously presented*) A method of reading data from a data carrier using a device with first and second data transfer heads arranged in a read-after-write configuration, the method comprising aligning both heads in the carrier direction of travel and with a common data track, attempting to read the data from the data carrier using the first head and subsequently reading the data using the second head.

53. (*Original*) A method as claimed in Claim **52** wherein the second head is used to read the data if the first head has difficulty reading it.

54. (*Original*) A method as claimed in Claim **52** wherein the second head is a write head capable of writing data to the carrier as well as reading data from the data carrier.

55. (*Original*) A method as claimed in Claim **52** wherein the method comprises determining that the first head has not read data of a region of the data carrier properly and advancing or rewinding said region to align it with the second head.

56. (*Original*) A method as claimed in Claim **52** wherein the data carrier comprises a tape which moves past the second head before it encounters the first head and the tape is rewound in order to read a section of the tape with the second head.

57. (*Original*) A data transfer device arranged to read data from a dynamic data carrier comprising first and second data transfer heads arranged in a read-after-write configuration so the first and second heads are arranged to be aligned with a common data track of the data carrier, the first head being arranged to read data from the data carrier and the second head being arranged to subsequently read data from the data carrier, the first and second transfer elements being aligned with each other in the

direction of travel, in use, of the data storage element relative to the data transfer elements.

58. (*Original*) A device according to Claim **57** wherein the second head is arranged to read the data if the first head has difficulty reading it.

59. (*Previously presented*) A device according to Claim **57** wherein the second head is capable of both reading and writing data carrier.

60. (*Previously presented*) A device according to Claim **57** wherein the device is arranged for advancing or rewinding a region to align it with the second head in response to the device determining that the first head has not read data from the region of the data carrier properly.

61. (*Previously presented*) A device according to Claim **57** wherein the data carrier is a tape which is arranged to move past the second head prior to encountering the first head and the device is arranged to rewind the tape to read a section of the tape with the second head.

62. (*New*) A data transfer device adapted to transfer data from a dynamic data storage medium having at least one data storage track having physical variations corresponding with recorded information, the data transfer device comprising:

first and second transfer elements, the first and second transfer elements being positioned, in use, with respect to each other and the track, so the first and second transfer elements can read the same physical variations from the track as the track moves in the direction of track travel past the elements, the first and second data transfer elements being arranged to read the same physical variations from the same portion of said track at different times.

63. (*New*) A method of reading physical variations corresponding with recorded information from a track of a dynamic data storage medium, the method being performed by using data transfer elements having different positions along the length of the track, the method comprising:

reading said physical variations from the track via a first of the data transfer elements;

error checking a data element on the track, the error-checked data element being indicated by the physical variations read from the track via the first data transfer element;

reading the same physical variations from the track via a second of the transfer elements if the error checking step results in an error signal;

positioning the first and second transfer elements relative to the track in the direction of track movement so the first and second transfer elements read the same physical variations from the track as the track moves relative to the first and second transfer elements; and

maintaining the first and second data transfer elements in a fixed position relative to each other.

64. (*New*) A method of reading data from a data carrier using a device with first and second data transfer heads arranged (a) to read a track having physical variations corresponding with recorded information, and (b) in a read-after-write configuration, the method comprising positioning both heads in the track direction of travel so both heads can read the same physical variations from the track as the track moves past the heads, and attempting to read the variations from the track as the track passes by the heads by using the first head and subsequently reading the same physical variations that the first head attempted to read by using the second head.

65. (*New*) A method as claimed in Claim 64 wherein the second head is used to read the same physical variations if the first head has difficulty reading them.

66. (*New*) A method as claimed in Claim 64 wherein the method comprises determining that the first head has not read the physical variations of a region of the track properly and advancing or rewinding said region so it is positioned so the second head reads the same physical variations at the region.

67. (*New*) A method as claimed in Claim 64 wherein the same physical variations move past and are read by the second head before the physical variations move past and are read by the first head, and then rewinding the track so the second head again reads the same physical variations.

68. (*New*) A data transfer device arranged to read physical variations from a track of a dynamic data carrier comprising first and second heads arranged in a read-after-write configuration, the first and second heads being positioned, in use, relative to each other and the track so they read the same physical variations from the track, the first head being arranged to read the physical variations from the track and the second head being arranged to subsequently read the same physical variations from the track.

69. (*New*) A device according to Claim **68** wherein the device is arranged for causing the second head to read the same physical variations if the first head has difficulty reading them.

70. (*New*) A device according to Claim **68** wherein the device is arranged for advancing or rewinding the track so the same physical variations can be read by the second head in response to the device determining that the first head has not read the same physical variations properly.

71. (*New*) A device according to Claim **68** wherein the track is arranged so the same physical variations move past and are read by the second head prior to the track moving past and being read by the first head and the device is arranged to rewind the track to read the same physical variations with the second head.